

No. 2013-1563

**UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT**

JEFFREY SCHWINDT, MICHAEL E. MILLER, JOSEPH L. MARK,
JOHN P. HANCOCK, AND CHARLES BUTCHER,

Appellants,

v.

MICHAEL E. MILLER, JOSEPH L. MARK,
JOHN P. HANCOCK, AND CHARLES BUTCHER

Appellees.

Appeal from the United States Patent and Trademark Office,
Patent Trial and Appeal Board in Interference No. 105,805

BRIEF FOR APPELLEES

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CERTIFICATE OF INTEREST

Counsel for Appellees certifies the following:

1. The full name of every party or amicus represented by me is:

Michael E. Miller; Joseph L. Mark

2. The name of the real party in interest (if the party named in the caption is not the real party in interest) represented by me is:

Hologic, Inc.

3. All parent corporations and any publicly held companies that own 10 percent or more of the stock of the party or amicus curiae represented by me are:

None

4. The names of all law firms and the partners or associates who appeared for the party or amicus now represented by me in the trial court or agency or are expected to appear in this court are:

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January 27, 2014

/s/ David L. Cavanaugh
David L. Cavanaugh

TABLE OF CONTENTS

	Page
CERTIFICATE OF INTEREST	i
TABLE OF AUTHORITIES	iv
STATEMENT OF RELATED CASES	1
STATEMENT OF JURISDICTION	1
INTRODUCTION	1
STATEMENT OF ISSUE	4
STATEMENT OF THE CASE	4
STATEMENT OF THE FACTS	6
A. The Claimed Invention Of The '824 Patent.....	6
B. Promex Conceive Of A Pneumatically Powered Tissue Cutting Device Before Ever Meeting Mr. Schwindt.....	7
C. Promex Retains Air Systems Engineering To Assemble A Pneumatic Control System	9
D. Proceedings Before The Board	13
SUMMARY OF THE ARGUMENT	14
ARGUMENT	15
I. STANDARD OF REVIEW	15
II. THE BOARD PROPERLY FOUND THAT MR. SCHWINDT FAILED TO PROVE THAT HE CONCEIVED OF THE SUBJECT MATTER OF COUNT I.....	18
A. The Board Properly Found That Mr. Mark And Mr. Miller (Not Mr. Schwindt) Conceived Of The Hydraulic System.....	19

B.	Mr. Schwindt Failed To Prove That He Conceived Of The Hydraulic Rotary Motor	20
C.	The Board Properly Found That Mr. Schwindt Failed To Prove That He Made An Inventive Contribution To The Claimed Device	22
1.	Mr. Schwindt's design of the hydraulic system was not inventive.....	23
2.	Mr. Schwindt's alleged contributions to the hydraulic rotary motor were not inventive.....	27
CONCLUSION		28
CERTIFICATE OF SERVICE		
CERTIFICATE OF COMPLIANCE		

TABLE OF AUTHORITIES

CASES

	Page(s)
<i>Bruning v. Hirose</i> , 161 F.3d 681 (Fed. Cir. 1998).....	16
<i>Burroughs Wellcome Co. v. Barr Laboratories, Inc.</i> , 40 F.3d 1223 (Fed. Cir. 1994).....	26
<i>Dawson v. Dawson</i> , 710 F.3d 1347 (Fed. Cir. 2013)	17
<i>Environ Products, Inc. v. Furon Co.</i> , 1998 WL 221033 (E.D. Pa. May 1, 1998)	16
<i>Ethicon, Inc. v. U.S. Surgical Corp.</i> , 135 F.3d 1456 (Fed. Cir. 1998)	18, 22, 23, 24, 26
<i>Fina Oil & Chemical Co. v. Ewen</i> , 123 F.3d 1466 (Fed. Cir. 1997).....	16, 23
<i>In re Baxter International, Inc.</i> , 678 F.3d 1357 (Fed. Cir. 2012).....	15
<i>Price v. Symsek</i> , 988 F.2d 1187 (Fed. Cir. 1993)	16, 18
<i>Sewall v. Walters</i> , 21 F.3d 411 (Fed. Cir. 1994).....	16, 17, 24, 25
<i>Shatterproof Glass Corp. v. Libbey-Owens Ford Co.</i> , 758 F.2d 613 (Fed. Cir. 1985).....	22
<i>University of Colorado Foundation, Inc. v. American Cyanamid Co.</i> , 342 F.3d 1298 (Fed. Cir. 2003)	17

STATUTES

28 U.S.C. § 1295	1
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STATEMENT OF RELATED CASES

In a related matter in the Southern District of Indiana, Mr. Schwindt sought to be named as a co-inventor on U.S. Patent No. 6,758,824. The case, *Jeffrey R. Schwindt v. Hologic, Inc., Suros Surgical Systems, Inc., Michael E. Miller, and Joseph L. Mark*, case number 1:11-cv-00110-JMS-MJD, was administratively closed on August 26, 2011 pending the outcome of the interference proceeding at issue in this appeal.

STATEMENT OF JURISDICTION

This is an appeal from a final decision of the Patent Trial and Appeal Board of the United States Patent and Trademark Office. The Court has jurisdiction pursuant to 28 U.S.C. § 1295(a)(4)(A).

INTRODUCTION

The Board properly found that Jeffrey Schwindt is not entitled to be named as an inventor on U.S. Patent No. 6,758,824 (the “’824 patent”). A20. Appellees, all engineers at Promex, Inc. (“Promex”), conceived of the device before meeting Mr. Schwindt. And while Mr. Schwindt assisted in reducing the claimed invention to practice, his contributions were not inventive, but constituted routine applications of known principles.

Joseph Mark and Michael Miller began working on the claimed breast biopsy device at Promex in 1997, long before they met Mr. Schwindt in March

2000. A2881, ¶ 8; A2896, ¶ 8. By early 1998, they had decided that the device should be pneumatically powered (*i.e.*, with pressurized air or gas) so that it would be compatible with ultrasound technology. A6, FF2; A2881, ¶ 9; A2896, ¶ 9. Air motors, which are lighter than electric motors, would reduce the weight of the device, such that a physician could hold the handpiece in one hand and an ultrasound paddle in the other while performing a biopsy. A2881, ¶ 9; A2896, ¶ 9. In January and February 2000, Mr. Mark and Mr. Miller further recognized that a pneumatic device (which lacks the metal parts associated with electric motors) would also be compatible with magnetic resonance imaging (MRI), thus allowing physicians to perform MRI-guided biopsies. A2882, ¶ 11; A2897, ¶ 11. By February 2000, Mr. Miller had built a prototype device. A2883, ¶ 15; A2897, ¶ 14.

Mr. Mark and Mr. Miller then searched for a vendor who could construct a pneumatic control system to power the device. A6, FF 5; A2883, ¶ 17; A2898, ¶ 16. Eventually, they met and hired Mr. Schwindt to assemble the pneumatic control system. A7, FF 9-10; A2884, ¶¶ 18-21; A2898-99, ¶¶ 17-20. Mr. Schwindt assembled the control system using standard pneumatic components—or “junk parts,” as he called them. A2528. Mr. Mark and Mr. Miller filed a patent application on the device in November 2000; the application issued as the ’824 patent on July 6, 2004.

The Board correctly found no evidence that Mr. Schwindt was entitled to be named as a co-inventor on the '824 patent for the following reasons.

First, Mr. Schwindt failed to demonstrate that he conceived of the pneumatic system of the claimed device. Promex's engineers planned to run the device pneumatically long before Mr. Schwindt became involved. A6, FF 2-4. Indeed, that was why Promex hired Mr. Schwindt and his company "Air Systems Engineering," a company specializing in pneumatics. A6-7, FF 5-10. Mr. Schwindt himself admitted that Promex's engineers already had the idea of using pneumatics to run the device before they hired him. A8, FF 17; A2517. Nor did Mr. Schwindt present evidence sufficient to support his claim that he contributed to the conception of a rotary air motor. A19. Indeed, the record contains ample evidence that Mr. Mark and Mr. Miller conceived of the rotary motor independent of any contribution by Mr. Schwindt. A2886, ¶ 28; A2897, ¶ 13; A2901, ¶¶ 28-30.

Second, the Board properly rejected the argument that Mr. Schwindt's construction of the pneumatic system used in a specific embodiment of the claimed device renders him a co-inventor. Mr. Schwindt's contributions were not inventive, but merely involved the routine application of known principles. The Board's finding in this regard was supported by the un rebutted testimony of Appellees' expert, Thomas J. Labus, that pneumatically powered rotary and reciprocating motors were known and used in medical devices at the time, and no

more than ordinary skill was needed to turn the Promex engineers' vision into a functioning device. A12-13, FF 42-43; A15.

Appellants thus failed to prove co-inventorship by even a preponderance of the evidence, let alone clear and convincing evidence. The Board's judgment should be affirmed.

STATEMENT OF ISSUE

Whether the Board properly determined that Appellants failed to prove that Mr. Schwindt should be named as a co-inventor on the '824 patent.

STATEMENT OF THE CASE

On September 8, 2004, shortly after the issuance of the '824 patent, Mr. Schwindt filed an application—Serial No. 10/936,395—copying the claims of the '824 patent exactly and naming himself, as well as Appellees, as co-inventors. A22-85. The Board declared the present interference on May 13, 2011, A922-30, but subsequently issued a redeclaration of the interference on March 28, 2012, identifying two counts. A1365-68. Count I is identical to claim 1 of the '824 patent. A1366. Count II, which is not at issue in this appeal, is identical to claim 28 of the '824 patent, which further requires a tubular axle in the rotary air motor.¹ A1367. At that time, the Board authorized Mr. Schwindt to file a motion

¹ Appellants do not contest the Board's determination that Mr. Schwindt did not conceive of any elements of Count II. *See* A18-19. Therefore, Appellees do not address Count II in this brief.

addressing inventorship and derivation. A1369-71. Mr. Schwindt instead filed a motion purporting to assert “priority” of invention. A1377-1427; A1619-74.

On May 7, 2013, the Board issued its decision denying Mr. Schwindt’s motion. The Board held that Mr. Schwindt “failed to meets its burden to show that Mr. Schwindt should have been named as an inventor on the Miller ’824 patent or that the claimed subject matter was derived from him,” under either a clear and convincing or preponderance of the evidence standard. A4. The Board found that Mr. Miller and Mr. Mark conceived of pneumatic or “hydraulic” control² of the tissue cutting device independently of Mr. Schwindt. A14. The Board further held that Mr. Schwindt’s contribution—the design of the hydraulic circuit—involved nothing more than the exercise of ordinary skill in the art and did not entitle him to be named as an inventor. A14-16. The Board also held that Mr. Schwindt did not provide sufficient evidence to corroborate his claim that he invented the claimed hydraulic rotary motor of Counts I and II, or the claimed tubular axle of Count II. A18-19. Finally, the Board found that Mr. Mark and Mr. Miller did not derive the invention from Mr. Schwindt because Mr. Schwindt did not establish that he conceived of the subject matter of the counts prior to Mr. Mark and Mr. Miller. A19-20.

² As Mr. Schwindt noted below (A1623), the patent claims use the word “hydraulic” broadly to include “pneumatic” control.

The Board entered judgment for Appellees on May 7, 2013. This appeal followed.

STATEMENT OF THE FACTS

A. The Claimed Invention Of The '824 Patent

The '824 patent describes a minimally invasive device for collecting tissue samples without subjecting the patient to an open surgical procedure. A891. One embodiment of the device, pictured below, has an elongated outer cannula (tube) 15 with a tissue receiving opening 25 near a sharp tip 16. A887, A893. An inner cannula 17 with a sharpened tissue cutting edge 35 moves back and forth and rotates within the outer cannula. *Id.* The movement of the inner cannula is powered by a rotary (spinning) motor and a reciprocating (back-and-forth) motor. Both motors are pneumatic, *i.e.*, powered by air. A894-95.

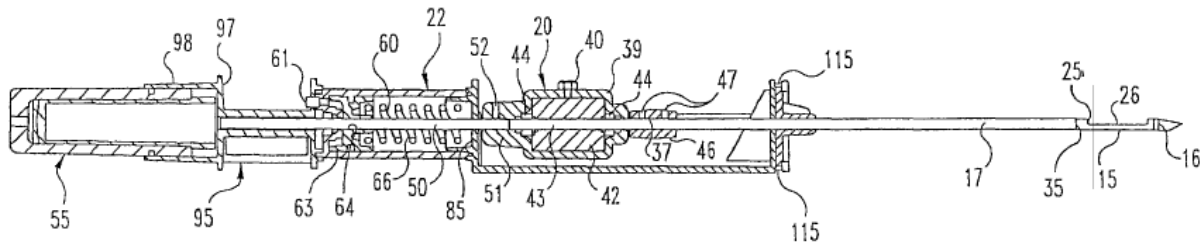


Fig. 3A

A887.

To obtain a tissue sample, the outer cannula is inserted into the patient with the tissue receiving opening 26 positioned near the tissue to be sampled. A892. Aspiration is then applied to the inner cannula, causing tissue to be drawn into the

tissue receiving opening and held therein. *Id.* The rotary and reciprocating motors are activated to advance the sharpened cutting edge of the inner cannula past the tissue receiving opening to cut a tissue sample. A894. The tissue sample is then drawn toward the rear of the instrument through the inner cannula using aspiration, and subsequently deposited in collection trap 55. *Id.* The process can be repeated numerous times without removing the instrument from the patient, enabling the recovery of multiple tissue samples with only one insertion of the instrument and thereby reducing patient trauma. A891.

B. Promex Conceives Of A Pneumatically Powered Tissue Cutting Device Before Ever Meeting Mr. Schwindt

Joseph L. Mark and Michael E. Miller were the Promex engineers primarily responsible for inventing the claimed biopsy device. The biopsy device grew out of Mr. Mark's and Mr. Miller's previous work on spinal and ophthalmic tissue extraction devices. A2880, ¶ 6; A2895, ¶ 6; A2181-89. These prior devices included a mechanism similar to the claimed breast biopsy device. *Id.* They each have an outer "cannula"—essentially, a long hollow needle—with a closed, sharpened distal end for piercing tissue and a notch close to the distal end. *Id.* A doctor inserts the cannula near the biopsy target, and a vacuum sucks the tissue into the notch. *Id.* A second sharpened cannula within the outer cannula moves back and forth ("reciprocally") past the notch to sever the tissue caught in the notch. *Id.*

Based on this mechanism, Mr. Mark and Mr. Miller started work on a breast biopsy device in 1997, in consultation with a breast surgeon. A2881, ¶ 8; A2896, ¶ 8. The team quickly decided that the device should be powered pneumatically, *i.e.*, using compressed air to move the cutting mechanism. A6, FF 2; A2881, ¶ 9; A2896, ¶ 9. They believed that pneumatics would lighten the device's handpiece. This would make it easier to use with an ultrasound scanner because a physician could hold an ultrasound paddle with one hand while holding and moving the air-powered biopsy handpiece with the other hand. A2881, ¶ 9; A2896, ¶ 9. The team's decision is documented in a March 6, 1998 memorandum stating the intent to operate the device with a "pneumatic" system, including a "footswitch drive of an air cylinder." A2881, ¶ 9; A2896, ¶ 9; A2213. This "pneumatic footswitch" would allow an "operator" to determine the "[s]peed of the cutter." *Id.*

As the Promex engineers started to build a prototype in January and February 2000, they continued to focus on powering the device pneumatically. A2882, ¶ 11; A2897, ¶ 11. Indeed, they identified a further reason to use pneumatics. Given the lack of electrical components, which can interfere with an MRI machine's large magnet, the device could be used in or near an MRI machine. A2882, ¶ 11; A2897, ¶ 11. MRI-compatibility would provide a significant advantage over existing biopsy systems. A2882, ¶ 11; A2897, ¶ 11. This too was documented: a February 7, 2000 memorandum states that the Promex team wanted

a “pneumatic drive system” to “achieve a handpiece that is disposable, can achieve the cut speeds we believe are appropriate[,] and allows for MRI compatibility.”

A2882, ¶ 12; A2897, ¶ 12; A2216.

When they decided to power the device pneumatically, Mr. Mark and Mr. Miller knew that a pneumatic system would be straightforward to build. A6, FF 4; A2882, ¶ 13; A2897, ¶ 13. Mr. Mark had experience with pneumatics in a prior job. A6, FF 3; A2882, ¶ 13; A2897, ¶ 13. The Promex team in fact built a pneumatically-powered prototype in late February 2000, as reflected in a March 2, 2000 internal Promex memorandum. A2883, ¶ 15; A2897, ¶ 14; A2218-19. It used 40 pounds per square inch (“psi”) of air pressure to effectively sever different types of breast tissue in preliminary tests. A2218-19.

C. Promex Retains Air Systems Engineering To Assemble A Pneumatic Control System

After testing the prototype, the Promex team sought to assemble a complete pneumatic control system quickly, and in a form that could be easily manufactured. A2883, ¶ 17; A 2898, ¶ 16. One of their suppliers, Mr. Karl Fancher, recommended Air Systems Engineering as one of several companies that would be able to help. A7, FF 8-9; A2884, ¶ 18; A2898, ¶ 17. Mr. Schwindt owned Air Systems Engineering.

Mr. Mark and Mr. Miller met Mr. Schwindt for the first time on March 16, 2000. A7, FF 10-11; A2884, ¶ 19; A2898, ¶ 18. The Promex team described their

device, including the use of pneumatics as a power source. A7, FF 13; A2884, ¶ 20; A2899, ¶ 19. Indeed, in his deposition (despite suggestions to the contrary in a declaration signed August 21, 2008 (A3717-40)), Mr. Schwindt admitted that the Promex team came into the meeting with the idea of powering the device with pneumatics. A8, FF 17; A2485, 2517. Mr. Schwindt also testified that he considered himself to be Promex's "vendor." A2530.

Consistent with his view of a "vendor relationship," Mr. Schwindt took instructions from Promex. For instance, on March 20, 2000, following the initial meeting, Mr. Schwindt faxed the Promex team a diagram of the pneumatic system's expected functions. A8, FF 19; A2885, ¶ 23; A2899, ¶ 22; A2163-64. Mr. Schwindt regularly diagrammed systems like this to ensure that he understood his client's needs. A2526-27. Tellingly, Mr. Schwindt's fax cover page refers to the diagram as depicting "your"—meaning Promex's—system. A2163. It does not refer to the system as Mr. Schwindt's. *Id.*

After receiving this fax, Mr. Miller called Mr. Schwindt to correct certain steps in the flow chart. A2885, ¶ 23; A2899, ¶ 22. Mr. Schwindt duly sent a revised diagram on March 21, 2000, again stating that the diagram was for "your"—meaning Promex's—system. A2885, ¶ 23; A2899, ¶ 22; A2165-66. The Promex engineers again had to adjust this second diagram, resulting in the final logic diagram. A2885, ¶ 23; A2899, ¶ 22. At no point in this back-and-forth did

Mr. Schwindt suggest any changes of his own for the design. Nor did he say he believed he owned any part of the pneumatic system. A2885, ¶ 24; A2900, ¶ 23.

After finalizing the flow chart, Mr. Schwindt assembled a system to accomplish the tasks identified by the Promex team. A2885, ¶ 24; A2900, ¶ 23. He used only off-the-shelf parts, as expressly instructed by the Promex engineers. A8, FF 21; A2528-29; A2531-32; A2884, ¶ 21; A2899, ¶ 20. He did not design any of the system's individual components himself. A8, FF 20; A2528-29; A2531-32. Just the opposite: with one exception, Mr. Schwindt testified that he built the system entirely out of "junk parts." A2528-29; A2531-32.

This pattern repeated itself throughout the assembly process. The Promex team would tell Mr. Schwindt the functional needs of the biopsy device, and Mr. Schwindt would simply implement modifications that they had approved. A2885, ¶ 24; A2900, ¶ 23. For instance, the Promex team instructed Mr. Schwindt to mount the device to make it portable, which he did to their specifications. A2901, ¶ 27. And when the Promex team decided that the inner cannula should rotate as well as move back and forth, Mr. Miller instructed Mr. Schwindt to modify the control system to control a motor that would rotate the inner cannula. A2901-02, ¶ 30.

Throughout the design process, Promex forbade Mr. Schwindt from changing the system's functional design without express authorization. A2885, ¶ 24; A2901, ¶ 23. Nor, in any event, could Mr. Schwindt realistically have

changed the system's functionality on his own; he had no experience with biopsy devices and was not involved in testing the device's functionality. A2885, ¶ 24; A2901, ¶ 23; A2485. He thus would have had no basis for modifying the system. Quite simply, as Mr. Schwindt testified in his deposition, his work was entirely "derived" from Promex's engineers. A2587-88.

Promex applied for a patent on the tissue cutting device on November 6, 2000. On July 6, 2004, Promex's '824 patent issued. Claim 1 of the '824 patent reads:

1. A tissue cutting device comprising:

- an outer cannula defining an outer lumen and a tissue-receiving opening adjacent a distal end of said outer cannula communicating with said outer lumen;
- an inner cannula slidably disposed within said outer lumen and defining a inner lumen from an open distal end to an open opposite proximal end, said inner cannula defining a cutting edge at said open distal end operable to sever tissue projecting through said tissue receiving opening;
- a first hydraulic rotary motor operably coupled to said inner cannula to rotate said inner cannula within said outer cannula;
- a second hydraulic reciprocating motor operably coupled to said inner cannula to translate said inner cannula within said outer cannula while said inner cannula rotates; and
- a hydraulic system connecting said first and second hydraulic motors to a source of pressurized fluid.

A901.

D. Proceedings Before The Board

On September 8, 2004, shortly after the issuance of the '824 patent, Mr. Schwindt filed an application—Serial No. 10/936,395—copying the issued patent, including the claims, in order to provoke this interference. A22-85. The Board declared an interference on May 13, 2011. A922-30. The Board issued a redeclaration of the interference on March 28, 2012, identifying two counts. A1365-68. Count I is identical to claim 1 of the '824 patent. Count II, which is not at issue in this appeal, is identical to claim 28 of the '824 patent, which further requires a tubular axle in the rotary air motor. A1366-67.

The Board authorized Mr. Schwindt to file a motion addressing inventorship and derivation. However, in “Substantive Motion 2” filed May 11, 2012 (A1377-1427), and “Substitute Substantive Motion 2” filed October 12, 2012 (A1619-74), Mr. Schwindt instead purported to assert “priority” of invention. In support of his motion, Mr. Schwindt submitted several exhibits and four declarations. Appellees responded to Mr. Schwindt’s assertion of “priority” by submitting several exhibits and four declarations. Although both parties requested oral argument (A1840-42; A1863-65), the Board denied the requests (A1994-1995).

On May 7, 2013, the Board issued its decision denying Mr. Schwindt’s motion. The Board held that Mr. Schwindt “failed to meets its burden to show that Mr. Schwindt should have been named as an inventor on the Miller '824 patent or

that the claimed subject matter was derived from him,” under either a clear and convincing or preponderance of the evidence standard. A4. The Board found that Mr. Miller and Mr. Mark conceived of pneumatic or “hydraulic” control of the tissue cutting device independently of Mr. Schwindt. A14. The Board further held that Mr. Schwindt’s contribution—the design of the hydraulic circuit—involved nothing more than the exercise of ordinary skill in the art and did not entitle him to be named as an inventor. A14-16. The Board also held that Mr. Schwindt did not provide sufficient evidence to corroborate his claim that he invented the claimed hydraulic rotary motor of Counts I and II, or the claimed tubular axle of Count II. A18-19. Finally, the Board found that Mr. Mark and Mr. Miller did not derive the invention from Mr. Schwindt because Mr. Schwindt did not establish that he conceived of the subject matter of the counts prior to Mr. Mark and Mr. Miller. A19-20.

The Board entered judgment for Appellees on May 7, 2013. This appeal followed.

SUMMARY OF THE ARGUMENT

The Board correctly held that Mr. Schwindt should not be named as a co-inventor on the ’824 patent because he failed to prove, under either a preponderance or a clear and convincing standard, that he conceived of or made an inventive contribution to any of the elements of Count I of the interference.

First, the Board correctly held that Mr. Schwindt failed to prove that he conceived of any aspect of the claimed invention. There was substantial evidence that Mr. Mark and Miller had decided to use a hydraulic system to control their biopsy device before meeting Mr. Schwindt for the first time. In addition, Mr. Schwindt failed to provide evidence to support his claim of conception of the hydraulic rotary motor.

Second, substantial evidence, including un rebutted expert testimony, supports the Board's finding that Mr. Schwindt exercised only ordinary skill in assisting Mr. Mark and Mr. Miller to reduce the claimed invention to practice. Such a non-inventive contribution to the hydraulic system does not entitle Mr. Schwindt to be named as an inventor.

The Board's judgment should be affirmed.

ARGUMENT

I. STANDARD OF REVIEW

The scope of this Court's review in an appeal from a Board decision is "limited." *In re Baxter Int'l, Inc.*, 678 F.3d 1357, 1361 (Fed. Cir. 2012). The Court reviews the Board's factual findings for substantial evidence and reviews the Board's legal conclusions *de novo*. *See id.* "A finding is supported by substantial evidence if a reasonable mind might accept the evidence to support the finding." *Id.*

Because Mr. Schwindt seeks to change the status quo of the Miller patent by adding himself as a named inventor, Mr. Schwindt bears the burden of establishing that he contributed in some significant manner to the conception of the invention defined by Count I. *See Fina Oil & Chem. Co. v. Ewen*, 123 F.3d 1466, 1473 (Fed. Cir. 1997). Where (as here) a patent has already issued, the significant contribution must be established by “clear and convincing evidence.” *Bruning v. Hirose*, 161 F.3d 681, 684-85 (Fed. Cir. 1998) (the “clear and convincing evidence standard” applies if applications are not “copending”); *see also Price v. Symsek*, 988 F.2d 1187, 1190-94 (Fed. Cir. 1993); *Environ Prods., Inc. v. Furon Co.*, 1998 WL 221033, at *4 n.2 (E.D. Pa. May 1, 1998) (“The burden of proof in an interference proceeding [is] clear-and-convincing evidence [if] the junior party filed an application after the senior party’s application issued as a patent.”), *aff’d and remanded*, 215 F.3d 1261 (Fed. Cir. 2000).³

Furthermore, this Court has repeatedly held that the designation of inventors on an issued patent is presumed to be correct, and the burden of showing misjoinder is one of clear and convincing evidence. *See, e.g., Fina Oil*, 123 F.3d at 1472 (“There is a presumption that the inventors named on an issued patent are

³ Appellants cite *Sewall v. Walters*, 21 F.3d 411, 415 (Fed. Cir. 1994), for their claim that neither party is junior or senior because the Board accorded Mr. Schwindt priority benefit of the filing date of the ’824 patent. Appellants’ Br. 23. This, however, does not affect Mr. Schwindt’s burden. As this Court confirmed: “As the original second to file, however, [junior party] Walters had the burden to show his asserted sole inventorship.” *Sewall*, 21 F.3d at 414.

correct, so misjoinder of inventors must be proven by clear and convincing evidence.”); *University of Colo. Found., Inc. v. American Cyanamid Co.*, 342 F.3d 1298, 1308 (Fed. Cir. 2003) (“There is a presumption that the inventors named on an issued patent are correct, so nonjoinder of inventors must be proven by facts supported by clear and convincing evidence.”).

Appellants incorrectly rely on *Dawson v. Dawson*, 710 F.3d 1347, 1350-51 (Fed. Cir. 2013), to support their assertion that Mr. Schwindt needed only a preponderance of evidence to prevail. *Dawson* was not an inventorship dispute, but a priority dispute. *Id.* Thus, the issue was *when* conception occurred, and because the Board had accorded both parties the same priority benefit date, neither party was entitled to a presumption of priority. A2517.

In this appeal, there is no priority dispute; the only issue is inventorship, *i.e.*, *who* conceived of Count I. *See also Sewall v. Walters*, 21 F.3d 411, 415 (Fed. Cir. 1994) (“The ‘inventorship’ issue to be decided is thus merely who conceived the invention for which patent protection is sought, and not who *first* conceived that invention.” (emphasis in original)). In this case of an issued patent, Mr. Schwindt’s inventorship claim must be demonstrated by clear and convincing evidence.

Ultimately, however, the Board correctly determined that Schwindt cannot prove co-inventorship under either a preponderance or clear and convincing standard. A4.

II. THE BOARD PROPERLY FOUND THAT MR. SCHWINDT FAILED TO PROVE THAT HE CONCEIVED OF THE SUBJECT MATTER OF COUNT I

Count I of the interference—the only count as to which Mr. Schwindt has appealed—contains five elements: (1) an outer cannula, (2) an inner cannula, (3) a hydraulic (pneumatic) motor to rotate the inner cannula, (4) a hydraulic (pneumatic) motor to move the inner cannula reciprocally, and (5) a hydraulic (pneumatic) system “connecting” the two motors to a source of pressurized fluid. A901.⁴

“To show co-inventorship, ... the alleged co-inventor or co-inventors must prove their contribution to the conception *of the claims*[.]” *Ethicon, Inc. v. U.S. Surgical Corp.*, 135 F.3d 1456, 1461 (Fed. Cir. 1998) (emphasis added). Moreover, such proof cannot take the form of mere assertion through the alleged co-inventor’s testimony; a co-inventorship claim must be corroborated. *See Price*, 988 F.2d at 1194.

Mr. Schwindt does not deny that he made no contribution to the claimed outer and inner cannulae or the “reciprocating” motor used to move the inner

⁴ Count II of the interference, which Mr. Schwindt does not appeal, further requires that the hydraulic rotating motor have a hollow axle. A1367; A902.

cannula back and forth. His only alleged contributions were to the claimed hydraulic system and the hydraulic motor used to rotate the inner cannula. As set forth more fully below, the Board's finding that Mr. Mark and Mr. Miller conceived of a hydraulic system to control the tissue cutting device prior to Mr. Schwindt's involvement is supported by substantial evidence. In addition, the Board properly found that Mr. Schwindt failed to prove that he conceived of the hydraulic motor used to rotate the inner cannula.

A. The Board Properly Found That Mr. Mark And Mr. Miller (Not Mr. Schwindt) Conceived Of The Hydraulic System

Substantial evidence supports the Board's finding that Mr. Mark and Mr. Miller conceived of a hydraulic system to control the claimed biopsy device prior to Mr. Schwindt's involvement. A13-14. Mr. Mark and Mr. Miller both testified that they had thought of a pneumatic system to control the device prior to meeting Mr. Schwindt, and also cited several memoranda predating Mr. Schwindt's involvement that describe their desire to control the system pneumatically. A13 (citing A2881, ¶ 9; A2896, ¶ 9); A6, FF2; A2181-2189; A2213; A2216; A2218-2219. Mr. Karl Fancher provided corroboration, testifying that Mr. Mark had called him in early 2000 (prior to Mr. Schwindt's involvement) and told him that he was looking for somebody to assemble and manufacture a pneumatic logic system for a breast biopsy device. A13 (citing A2930-31, ¶¶ 1, 6, 7); A6, FF 7-9. In fact, it was Mr. Fancher who then referred Mr. Mark to Mr. Schwindt. A7, FF

9; A2931, ¶ 7. Indeed, Mr. Schwindt admitted that it was Mr. Mark and Mr. Miller who came to their initial meeting with the idea of powering the device with pneumatics. A2517.

B. Mr. Schwindt Failed To Prove That He Conceived Of The Hydraulic Rotary Motor

The Board also correctly determined that Mr. Schwindt failed to present evidence sufficient to support his claim that he independently conceived of the claimed hydraulic rotary motor described in Count I. A19. Mr. Schwindt testified only that he recommended a “vane type” air motor and a specific placement for the rotary air motor. A18; A3721-22, ¶¶ 22-23. But neither of these features is required in the claimed invention. A18, A901. Mr. Schwindt never testified that he conceived of a rotary motor, let alone a hydraulic rotary motor. A18.

Moreover, the additional evidence proffered by Appellants to corroborate Mr. Schwindt’s conception of the hydraulic rotary motor failed to do so. A18-19. The only evidence Mr. Schwindt submitted to the Board in support of his contention that he conceived of the hydraulic rotary motor is a declaration from Mr. Jeffery Stark, a supplier for Mr. Schwindt, who testified that that Mr. Schwindt was supposedly working on an air motor sometime in 2000 or 2001 (A3760-66); a purchase order for a rotary motor (A3887-88); and a report on air motors for Rose-Hulman Ventures (A4074-4105). The Board correctly found that none of these

sufficiently corroborated Mr. Schwindt's claim that he conceived of the rotary motor. A19.

For example, Mr. Stark's testimony described a discussion he had with Mr. Schwindt in the summer of 2000 concerning an air manifold and a pinch valve. A10, FF 31; A18; A3760-61, ¶¶ 6-9. This does not corroborate Mr. Schwindt's claim because these are components of the pneumatic control system, not the rotary air motor. A18. Moreover, Mr. Stark did not witness any of Mr. Schwindt's work. A18. Indeed, at his deposition, Mr. Stark was unable to say whether Mr. Schwindt even worked on the rotary air motor before the '824 patent application was filed. A2844-46. The Board was thus well within its discretion to find Mr. Stark's testimony insufficient to corroborate Mr. Schwindt's claim. A18-19.

The Board further held that a copy of a purchase order for an air motor dated June 7, 2000, and a copy of a consulting report by Rose-Hulman Ventures regarding air motors, was not corroborative of Mr. Schwindt's claim. A19. These documents do nothing to illuminate Mr. Schwindt's alleged role in developing the claimed rotary air motor. A19. Appellants do not challenge this conclusion.

Furthermore, the evidence of record amply shows that Mr. Mark and Mr. Miller conceived of the rotary air motor independently of Mr. Schwindt. For example, they experimented with rotation of the inner cannula prior to retaining Mr. Schwindt's services (A2897, ¶ 13), and contemplated using a rotary motor to

rotate the inner cannula independently of Mr. Schwindt (A2886, ¶ 28; A2901, ¶ 28). In addition, Mr. Miller and Mr. Mark always intended to use an air motor to rotate the inner cannula in order to ensure that the handpiece was MRI-compatible. A2886, ¶ 28; A2901, ¶ 28.

Mr. Schwindt failed to provide evidence to support his testimony that he conceived of the hydraulic rotary motor of Count I. The Board thus correctly rejected Mr. Schwindt's claim that he conceived of the rotary hydraulic motor of Count I.

C. The Board Properly Found That Mr. Schwindt Failed To Prove That He Made An Inventive Contribution To The Claimed Device

The Board correctly determined that Mr. Schwindt failed to prove that he made any significant contribution to the conception of either a hydraulic system or a hydraulic rotary motor of the biopsy device, and therefore was not an inventor of Count I. “[O]ne does not qualify as a joint inventor by merely assisting the actual inventor after conception of the claimed invention.” *Ethicon*, 135 F.3d at 1460. “An inventor ‘may use the services, ideas, and aid of others in the process of perfecting his invention without losing his right to a patent.’” *Shatterproof Glass Corp. v. Libbey-Owens Ford Co.*, 758 F.2d 613, 624 (Fed. Cir. 1985). Put differently, “[o]ne who simply provides the inventor with well-known principles or explains the state of the art without ever having ‘a firm and definite idea’ of the

claimed combination as a whole does not qualify as a joint inventor.” *Ethicon*, 135 F.3d at 1460.

1. Mr. Schwindt’s design of the hydraulic system was not inventive

The Board correctly determined that Mr. Schwindt contributed only ordinary skill to the development of the claimed hydraulic control system, such that he is not entitled to be named as a co-inventor. A14-15.

In this regard, the Board properly credited unrebutted testimony from Professor Labus demonstrating that Mr. Schwindt used only ordinary skill to build the hydraulic system requested by Promex. Professor Labus showed that the flow charts and drawings Mr. Schwindt used were standard tools to those skilled in the art (A11, FF 35-36; A2914, ¶ 22); that the parts Mr. Schwindt used were off-the-shelf components (A12, FF 40; A2919, ¶ 31); and that assembling those parts to accomplish the functions identified by Promex took no more than ordinary skill (A12, FF 40; A2919, ¶ 31). “The basic exercise of the normal skill expected of one skilled in the art, without an inventive act, also does not make one a joint inventor.” *Fina Oil*, 123 F.3d at 1473.

Appellants never argued or presented evidence to show that anything more than ordinary skill was required to build a system that would pneumatically power and control the breast biopsy device that the Promex engineers conceived. On the contrary, the evidence demonstrated that Mr. Schwindt’s contribution was to build

the device designed by the Promex engineers, at their direction and instruction. *See infra* Section VI.B. “Moreover, depending on the scope of a patent’s claims, one of ordinary skill in the art who simply reduced the inventor’s idea to practice is not necessarily a joint inventor, even if the specification discloses that embodiment to satisfy the best mode requirement.” *Ethicon*, 135 F.3d at 1460.

Mr. Schwindt submitted no testimony, expert or otherwise, that an inventive contribution was required to build the pneumatic system. A15-16. Moreover, Mr. Schwindt’s own testimony supports the Board’s decision. He testified that he assembled the control system using “junk parts” (A2528-29, 2532) and admitted that there were “a hundred” ways to make the device (A2527). Further, his patent application states that his system was “illustrative” and merely one example of a system that would fit within the claimed invention. A53.

This case is similar to *Sewall v. Walters*, 21 F.3d 411 (Fed. Cir. 1994). *See* A3, A14. In *Sewall*, an inventor retained a contractor to implement a computer chip design. 21 F.3d at 414. The inventor told the contractor the functional needs of the device, and forbade the contractor from making any revisions. *Id.* After completing the work, the contractor applied for a patent on the chip design, the inventor filed a separate application, and an interference ensued. *Id.* at 413-14.

In *Sewall*, as here, the Board rejected the contractor’s co-inventorship claim. “In reaching this conclusion, the Board stated that there was no evidence of record

indicating that more than ordinary skill would have been needed to reduce to practice [the inventor's invention] at the time he communicated his concept to [the contractor]." *Id.* at 414-15. "The Board found as a factual matter that ... the functions of [the novel limitation] were fully capable of being implemented by a programmer of ordinary skill in the art by programming a general purpose computer to perform the required mathematical functions or by a hardware designer by combining discrete, known elements such as adders, multipliers, etc., to perform these functions." *Id.* at 415. This Court affirmed.

Like the inventor in *Sewall*, Mr. Mark and Mr. Miller directed Mr. Schwindt as to every functional requirement of the system—or, as Mr. Schwindt put it, his work was entirely "derived" from the Promex's team's instructions. A2587-88. Also, like the contractor in *Sewall*, Mr. Schwindt had no prior experience with biopsy devices (A2485), and he had no latitude to make any changes without the inventors' permission (A2885, ¶ 24; A2900, ¶ 23). Appellants point to no evidence suggesting that Mr. Schwindt was anything more than a hired hand.

Appellants' effort to distinguish *Sewall* is unavailing. Even if (contrary to the Board's finding) conception of the hydraulic control system occurred later than the meeting between Mr. Schwindt and the Promex inventors, the record is devoid of any evidence that Mr. Schwindt contributed something inventive to Count I. Nor can Appellants prove an inventive contribution by quibbling about when the

conception occurred. Regardless of the timing of conception, Appellants must identify evidence that Mr. Schwindt made an *inventive* contribution, not simply a contribution that was within the range of an ordinarily-skilled artisan. The Board found none and Appellants have cited none to this Court.

Appellants' reliance on *Ethicon* is also misplaced. The Board correctly determined Mr. Schwindt's contribution and then determined whether the contribution was reflected in the Claims. *Ethicon*, 135 F.3d at 1461-63 (granting co-inventorship status only if the person "contributed to the invention defined by" a claim or "if [the person's] contribution found its way into the defined invention" in a claim). Here, the Board correctly determined that Mr. Mark and Mr. Miller planned to use pneumatics to power and control the device before Mr. Schwindt started work. A14. However, even if conception of the hydraulic system occurred later, when they decided to have the system operate with two different air motors, Mr. Schwindt failed to identify, let alone corroborate, any *inventive* contribution that he made.

Notably, Claim I contains no detail regarding any particular hydraulic system. Because the Board determined that only ordinary skill was required to build the hydraulic system described in Claim I, conception was complete when the Promex engineers conceived of a hydraulic system. See *Burroughs Wellcome Co. v. Barr Labs., Inc.*, 40 F.3d 1223, 1229-30 (Fed. Cir. 1994).

Any contribution Mr. Schwindt made to the hydraulic control system of Count I required nothing more than ordinary skill, and did not rise to the level of an inventive contribution. The Board correctly rejected Mr. Schwindt's claim that he invented the hydraulic system of Count I.

2. Mr. Schwindt's alleged contributions to the hydraulic rotary motor were not inventive

The Board correctly found that Mr. Schwindt failed to rebut Professor Labus's testimony that, prior to 2000, air motors were generally known (A2922, ¶ 43) and "had been used to rotate cutters in surgical devices" (A2924, ¶ 45). Professor Labus cited to examples of publications dated before 2000 that described vane motors in handheld medical devices, including vane motors that were used in surgical devices in order to enable MRI-compatibility. A2923-24, ¶¶ 44-45. Furthermore, Mr. Labus demonstrated that pneumatic control systems to control both a rotary air motor and an air cylinder were present in the art as early as 1979 and described in pneumatics textbooks. A12, FF 42; A2916, ¶ 28; A2402-09. Thus, Mr. Schwindt failed to prove that any input he allegedly had into the development of the rotary hydraulic motor was inventive.

Even if Mr. Schwindt's claim that he conceived of a rotary air motor to replace an electric motor were true, this change would have been evident to any engineer of ordinary skill, and thus not inventive. Professor Labus testified that "an engineer of ordinary skill would have known that, to maintain MRI

compatibility, an air motor would have to be used to rotate the cutter.” A2922,
¶ 41.

Thus, any contribution Mr. Schwindt made to the hydraulic rotary motor of Count I required nothing more than ordinary skill, and did not rise to the level of an inventive contribution. The Board thus correctly rejected Mr. Schwindt’s claim that he invented the rotary hydraulic motor of Count I.

CONCLUSION

The Board’s judgment should be affirmed.

January 27, 2014

Respectfully submitted,

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CERTIFICATE OF SERVICE

I certify that I filed the foregoing Brief for Appellees with the Clerk of the United States Court of Appeals for the Federal Circuit via the CM/ECF system and served a copy on the following counsel of record, this 27th day of January, 2014, by the CM/ECF system and electronic mail.

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CERTIFICATE OF COMPLIANCE

Pursuant to Fed. R. App. P. 32(a)(7)(C), the undersigned hereby certifies that this brief complies with the type-volume limitation of Fed. R. App. P. 32(a)(7)(B) and Circuit Rule 32(b).

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